

WHAT IS CLAIMED IS:

1. An aluminum based material, comprising the elements of scandium (Sc), silicon (Si), magnesium (Mg), zirconium (Zr), copper (Cu), and aluminum (Al).

5 2. The aluminum based material in accordance with claim 1, wherein the scandium has a proportion ranged between 0.01% and 0.5%.

3. The aluminum based material in accordance with claim 1, wherein the silicon has a proportion ranged between 0.01% and 0.5%.

10 4. The aluminum based material in accordance with claim 1, wherein the magnesium has a proportion ranged between 0.01% and 0.5%.

5. The aluminum based material in accordance with claim 1, wherein the zirconium has a proportion ranged between 0.01% and 0.5%.

6. The aluminum based material in accordance with claim 1, wherein the copper has a proportion ranged between 0.01% and 0.5%.

15 7. The aluminum based material in accordance with claim 1, wherein the aluminum has a proportion ranged between 97.5% and 99.95%.

8. The aluminum based material in accordance with claim 7, wherein the optimum proportion of the aluminum is greater than 98%.